# Current Water Conditions in Massachusetts June 12, 2008

- May precipitation was below normal
- May streamflows were normal and below normal
- May ground-water levels were normal
- Reservoir levels are generally normal and above normal



# **Precipitation Conditions**

Out of the last 110 years May 2008 ranked as the 25<sup>th</sup> driest month of May. May State-wide precipitation was below normal, equaling an estimated 2.3 inches, which is about 61 percent of the long-term normal for May. The regions of Massachusetts received between 95 percent (Cape Cod and Islands) and 46 percent (CT River) of normal precipitation during May. In general, rainfall was limited to a few small to moderate events spread over the month. A table of May 2008 estimated precipitation statistics, based on precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks is attached. A map at the back of this report shows the distribution of May total rainfall in New England.

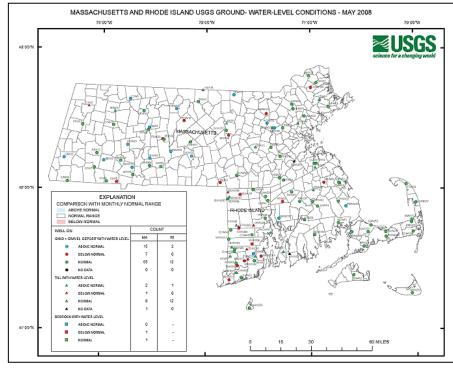
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As of June 12, monthly precipitation ranged from 0.25 to 3 inches, which is 15 to 200 percent of normal for this time of the month. The higher amounts of precipitation were in western MA and the lower amounts were in southeastern MA and on Cape Cod.

#### **Ground Water Levels**

Ground-water levels reported by the United States Geological Survey (USGS) at the end of May 2008 were generally normal (white areas on map). Record high water levels for May were recorded in the Georgetown 168 and Webster 1 observation wells in Massachusetts. The USGS assessment of ground-water levels is based on 124 wells in Massachusetts and Rhode Island with 10 or more years of record.

The USGS ground water level map and a Water Conditions Statement for the end of May 2008 can be viewed at the web site: http://ma.water.usgs.gov/water/water\_g.htm

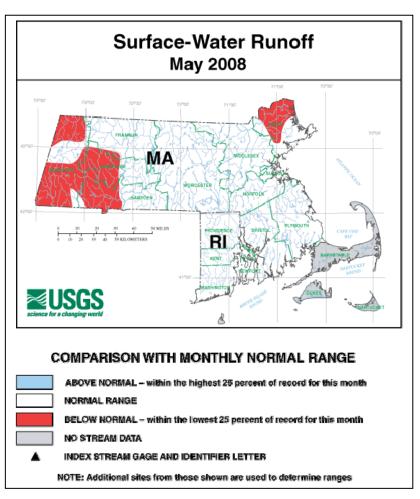


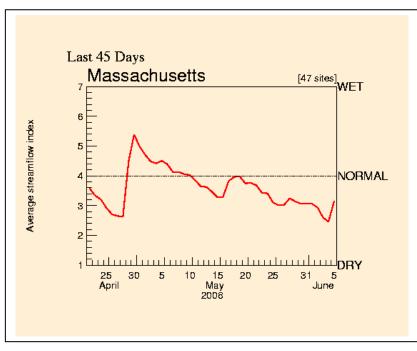
#### Stream Flow

During May stream flows in Massachusetts that are monitored by the United States Geological Survey (USGS) were generally normal (white area). Flows were below normal (red area) in the northeast and in several basins in western Massachusetts.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts as of June 11, 2008. The graph is a composite of 47 real time gages across the state with a long period of record. Slightly above normal streamflow at the beginning of May slowly declined to well below normal near the end of the month. Several small rises during the month were caused by precipitation events.

Additional information on streamflow is available from the USGS web page: http://ma.water.usgs.gov/water/waters.htm





#### KEY:

1 = New record low for day  $2 = < 10^{th}$  percentile  $3 = 10^{th} - 24^{th}$  percentile  $4 = 25^{th} - 74^{th}$  percentile  $5 = 75^{th} - 89^{th}$  percentile  $6 = \ge 90^{th}$  percentile 7 = New record high for day

# **Water Supply Reservoir Levels**

Surface water reservoir percent full values for water supply sources provided by water suppliers are listed below. The reservoir levels listed are reported to range from normal to a little above normal for this time of year.

May /June 2008 Massachusetts Reservoir Status

	Percent		Percent
Reservoir/City or Town	Full	Reservoir/City or Town	Full
Quabbin	99	Beverly/Salem	96
Worcester	99	Lynn	81.8
Cobble Mt./ Springfield	93	Taunton/New Bedford/Assawompsett	99.5

Note: N.A. Indicates data not available for this report

## Fire Danger

Fire danger during the month has been low to moderate.

## **Drought Indices/Forecasts**

The National Drought Mitigation Center's (NDMC's) June 10, 2008 Drought Monitor Map of Massachusetts, shown at right, indicates that about 69 percent of the eastern portion of Massachusetts is abnormally dry.

## **Standardized Precipitation Index:**

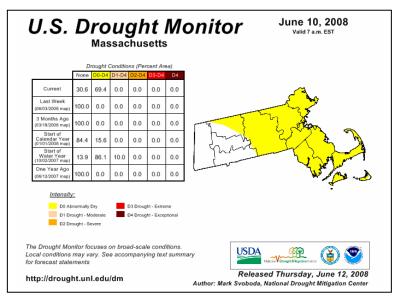
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of May shows moderately dry, normal, extremely (west) to moderately wet (cape), and very wet (west) and normal conditions, respectively, across Massachusetts.

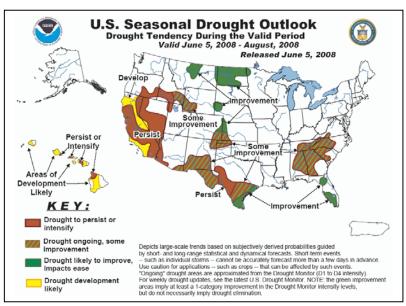
NWS/NOAA's Climate Prediction Center: The U.S. Seasonal Drought Outlook dated June 5, 2008 predicts normal conditions through August 2008.

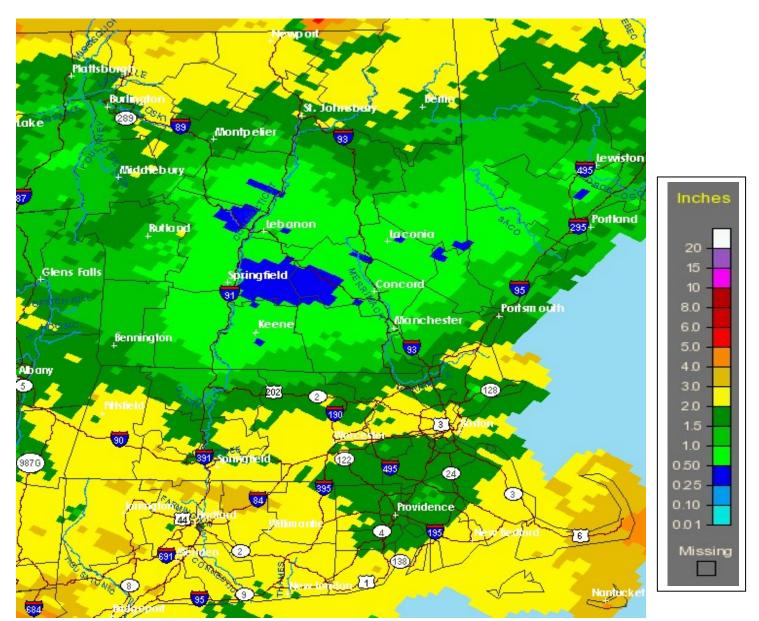
#### **Extended Forecasts**

The rest of this week will be sunny and mild through Saturday morning. Saturday afternoon through next Wednesday will be characterized by unsettled weather with several periods of showers and thunder showers and generally below normal temperatures.

The National Weather Service Climate Prediction Center's extended 8-14 day (19<sup>th</sup> – 25<sup>th</sup>) forecast predicts above normal precipitation and below normal temperatures. The 1-month extended forecast predicts normal precipitation and temperature.







http://www.srh.noaa.gov/rfcshare/precip analysis new.php



# TOTAL RAINFALL MAY 2008

This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and May August be preliminary in nature. Additional information, previous and future water conditions reports can be found on our web site: <a href="http://www.mass.gov/dcr/waterSupply/rainfall/">http://www.mass.gov/dcr/waterSupply/rainfall/</a>